the biting surface ends. The grinding teeth vary from simple one - cusped teeth, precisely like canines, to teeth with an enormous number of separate tubercles. In the former case it is hard to distinguish between incisors, canines, and cheek teeth in the lower jaw, where no suture separates the bone. More- • over it is quite common for the first cheek tooth in the lower jaw to have the characters of a canine, while the true canine approximates in its form to the antecedent incisors. This is so, for instance, with the Lemurs, where the first premolar is eaniiiiforin, and the canine shares in the curious procumbent attitude which distinguishes the lower incisors of many of those animals.

A variable number of the anterior cheek teeth may be little more than simple conical teeth ; but the rest of the set are commonly more complicated. "*No* definite laws can be laid down as to the complication of the posterior as compared with the anterior set. Broadly speaking, it is purely herbivorous creatures in which the least difference can be detected at the two ex- tremities, and which are at the same time the most elaborately decorated with tubercles and ridges. The converse is true that in purely carnivorous animals,, including insect- and fish-eating forms, there is the greatest difference between the anterior set of grinding teeth and those which follow. In these two respects such animals as a Lemur and a Rhinoceros occupy the extremes. Furthermore, it may be said that omnivorous creatures lie, as their diet would suggest, in an intermediate position. Generally speaking, when there is a marked difference between the first premolar "and molars at the end of the series, there is a gradual approximation in structure of a progressive kind. The tubercles become more numerous in successive teeth; but the corollary which is apparently deducible from this, *i.e.* that the last molar is the most elaborate of the series, is by no means always true. The last cheek tooth indeed is often degenerate. On the other hand, it is very markedly the largest of the series in such diverse types as the Elephant, the hog *I^iacochoerus,* and the Jfodent

Ifydrochoerus. It is a rule that the cheek teeth of the upper jaw are more complicated than the corresponding teeth of the lower jaw.

The structure of the cheek teeth is very diverse among the Mammalia. ~Brcj,dly, two types are to "be recognised. There are